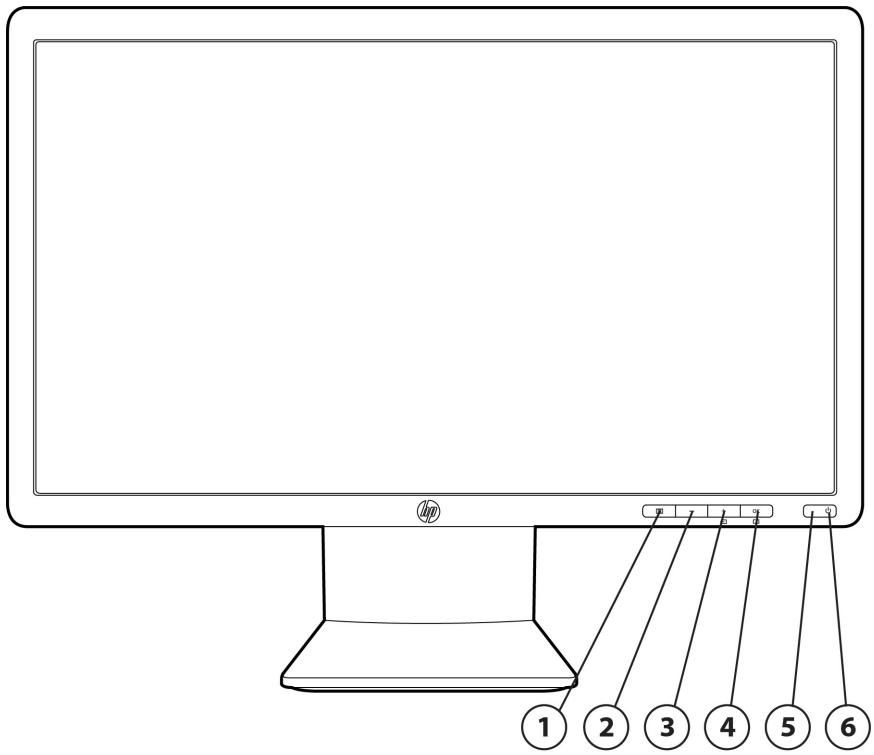
Overview



1. Menu	Opens, selects or exits the OSD menu.	**4. OK/Auto**	If the OSD menu is on, press to select the highlighted menu item. If the OSD menu is inactive, press to activate the auto adjustment feature to optimize the screen image.
2. Minus "-"	If the OSD menu is on, press to navigate backward through the OSD menu and decrease adjustment levels.	**5. Power**	Turns the monitor on or off

3. Plus"+"/Input	If the OSD menu is on, press to navigate forward through the OSD menu and increase adjustment levels.
	If the OSD menu is inactive, press to activate the source button that chooses the video signal input (VGA, DVI, or DisplayPort).
		6. Power LED	LED:
			fully powered = white;
			sleep mode = amber;
			sleep timer mode = flashing amber.

Models

D7Q13A4, D7Q13A8, D7Q13AS, D7Q13AT

Technical Specifications

Panel	**Type**	23-inch IPS Gen 2, LED Backlit
	Viewable Image Area (diagonal)	**58,42cm** (23 in.) widescreen; diagonally measured
	Panel Active Area (W x H)	**50,91 x 28,64 cm** (20.04 x 11.27 in.)
	Panel Type	Gen 2 IPS (Gen 2 technology, also called AH-IPS, enables lower power consumption).
	Resolution	1920 x 1080 @ 60 Hz
	Aspect Ratio	16:9
	Viewing Angle (typical)	Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)
	Brightness (typical)*	250 nits (cd/m^2)
	Contrast Ratio (typical)*	1,000:1
	Dynamic Contrast Ratio (typical)*	5,000,000:1
	Response Time (typical)*	8 ms gray to gray
	Pixel Pitch	0.265 mm
	Backlight Lamp Life (to half brightness)	30,000 hours minimum
	Color Support**	16.7 million colors
	Color Gamut Size vs. NTSC (CIE 1931) Size vs NTSC (CIE 1976) Coverage of sRGB (CIE 1976)	 72% 86% 95%
	*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower. ** With the use of FRC technology.	
User Controls	**Buttons or Switches**	Menu, Minus ("-"), Plus ("+") /Input, OK/Auto, Power
	Languages	10 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, T-Chinese and S-Chinese)
	On Screen Display (OSD) **User Controls**	Brightness, Contrast, Color, Image Control, OSD control, Management, Language, Information, Factory Reset, Input Control
Signal Interface/ Performance	**Horizontal Frequency**	24-94 kHz
	Vertical Frequency	50.76 Hz
	Native Resolution	1920 x 1080 @ 60 Hz
	Preset VESA Graphic Modes (non-interlaced)	640 x 480 @ 60Hz 720 x 400 @ 70 Hz 800 x 600 @ 60 Hz 1024 x 768 @ 60 Hz 1280 x 720 @ 60 Hz 1280 x 1024 @ 60 Hz 1440 x 900 @ 60 Hz 1600 x 900 @ 60 Hz

Technical Specifications

		1680 x 1050 @ 60 Hz 1920 x 1080 @ 60 Hz	
	Maximum Pixel Clock Speed	170 MHz	
	User Programmable Modes	Yes, 10	
	Anti-Glare	Yes	
	Default Color Temperature	6500 K	
Video/Other Inputs	**Plug and Play**	Yes	
	Self Powered USB 2.0 Hub	One upstream, two downstream ports (cable included)	
	Input Connectors	1 VGA, 1 DisplayPort 1.2 (1.1 compatible), 1 DVI-D; HDCP support on DisplayPort and DVI	
	Sync Input	Separate synch	
	Video Cables Included	(1) DVI-D **1,8 m** (5.9 ft), (1) DisplayPort **2 m** (6.56 ft)	
Power	**Power Supply**	Internal	
	Input Power	100- 240 VAC, 50 to 60 Hz	
	ENERGY STAR® Power[1]	22 W	
	Default Power[2]	28 W	
	Maximum Power[3]	36 W	
	Sleep Power	0.5 W	
	Power Cable Length	**1,9 m** (6.2 ft)	
Mechanical	**Dimensions** (W x D x H)	**Unpacked w/stand** (highest setting)	**54,4 x 24,29 x 46,99 cm** (21.4 x 9.5 x 18.5 in)
		Unpacked w/o stand (head only)	**54,4 x 5,1 x 32,9 cm** (21.4 x 2 x 12.9 in)
		Packaged	**62 x 18,3 x 51,8 cm** (24.4 x 7.2 x 20.4 in)
	Weight	**Head Only**	**4,19 Kg** (9.23 lbs)
		Unpacked	**6,4 Kg** (14.1 lbs)
		Packaged	**8,4 Kg** (18.52 lbs)
Ergonomic Features	**4-Way Comfort Adjust**	Easily adjust the display in height, tilt, swivel and pivot for maximum comfort.	
	Cable Management	Enhanced cable management for easy concealment of power, video and USB cables. Effortless routing of cables through the base of the column integrated cable management clip.	
	Detachable Stand	No	
	Tilt Range	-5° to + 30° vertical	
	Swivel Range	360°	
	Height Adjustable	Yes, 150 mm	
	Pivot Rotation	Yes	
Environmental	**Temperature -**	**5° to 35° C** (41° to 95° F)	

Technical Specifications

	Operating Temperature - Non-operating	**-20° to 60° C** (-4° to 140° F)
	Humidity - Operating	20% to 80% non-condensing
	Humidity - Non-operating	5% to 95%, 38.7° C max wet-bulb
	Altitude - Operating	**0 to 5,000 m** (16,404 ft)
	Altitude - Non-operating	**0 to 12,192 m** (0 to 40,000 ft)
	White LED Backlights	Yes
	CCFL Panel	No
	Arsenic-Free Display Glass	Yes
	Low Halogen[4]	Yes
	Mercury-Free Display Backlighting	Yes
Environmental Data	**Eco-Label Certifications & declarations**	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • US ENERGY STAR® • TCO 6.0 and TCO Certified Edge • EPEAT® Gold where HP registers commercial display products. See http://www.epeat.net for registration status in your country US Federal Energy Management Program (FEMP)

Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation	20.9 W	21.4 W	21.1 W
Sleep	0.2 W	0.27 W	0.21 W
Off	0.12 W	0.17 W	0.12 W

Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation	71 BTU/hr	73 BTU/hr	72 BTU/hr
Sleep	1 BTU/hr	1 BTU/hr	1 BTU/hr
Off	0.4 BTU/hr	0.5 BTU/hr	0.4 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

	Additional Information	• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC. • This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC. • This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).

- This product is in compliance with the IEEE 1680 (EPEAT) standard at the gold level, see: www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 28.6 % post-consumer recycled plastic (by wt.)
- This product is 98.5 % recycle-able when properly disposed of at end of life.

Packaging Materials	**External:**	PAPER/Corrugated	750 g
	Internal:	PLASTIC/EPS (Expanded Polystyrene)	449 g
		PLASTIC/EPE-Expanded Polyethylene	26 g
		PLASTIC/Other plastics unknown	3 g

RoHS Compliance

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at: http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances

		• Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
	Packaging	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.
	Hewlett-Packard Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html
Options For more information refer to the product's QuickSpecs.	**HP LCD Monitor Quick Release-Part number EM870AA**[5]	An easy-to-use, VESA-compliant, LCD monitor mounting solution that allows you to quickly and securely attach an LCD monitor to a variety of stands, brackets, arms or wall mounts. For more information, refer to this product's QuickSpecs document.
	HP USB Graphics Adapter-Part number NL571AA	Enables connection of up to six simultaneous displays to help you boost productivity and multi-task across several open applications. Use one Adapter to bridge between a notebook or desktop PC and second monitor or use multiple Adapters to connect several displays to each other.

Technical Specifications

	HP LCD Speaker Bar-Part number NQ576AA	Powered directly by the monitor or the PC, the Speaker Bar seamlessly attaches to the monitor's lower bezel to bring full audio support to select HP LCD monitors. Features include dual speakers with full sound range and external jack for headphones. Sold separately. For more information, refer to the product's QuickSpecs.
	HP Business PC Security Lock Kit-Part number PV606AA	Attaches to the rear of the PC with a six-foot steel cable that can be used to secure a PC or peripherals such as mice, keyboards, monitors or USB security devices to protect them against unauthorized removal by physically connecting the system to an anchor point.
	HP Integrated Work Center Stand - USDT and Thin Clients)-Part number LH526AA	Allows mounting of a 17 - 24 inch diagonal HP LCD monitor and an HP Compaq dc8000 series Ultra-slim Desktop PC as well as select HP Thin Clients on a single stand for the convenience of an "all-in-one" form factor. For more information, refer to this product's QuickSpecs document.
	HP Integrated Work Center 2 - Small Form Factor (SFF) -Part number QP897AA	Designed specifically for use with the HP Compaq Small Form Factor (SFF) Desktop PC and a 17 to 24-inch (43.18 to 60.96 cm) diagonal monitor, the HP Integrated Work Center 2 (IWC) - Small Form Factor (SFF) provides a portable, compact workspace to help maximize space-constrained work environments. (17 to 24-inch diagonal monitors need to meet supported weight limits of 7.5 to 12.1 lbs. (3.38 to 5.5 kg). For more information, refer to the product's QuickSpecs.
	HP Single Monitor Arm-Part number BT861AA	The flexible design of the HP Single Monitor Arm provides a seemingly endless range of display adjustments with an amazing 13 inches of lift, 50 degrees of tilt, and 360 degrees of pan and rotation - all at your fingertips -- helping you stay comfortable and productive throughout the day.
	HP Adjustable Dual Display Stand-Part Number AW664AA	Premium space-saving dual screen solution provides access to more monitor real estate and makes it possible to manage multiple applications simultaneously. Weight adjustable for dual monitors from 17-24". Rotate displays into portrait/landscape positions.
	HP DisplayPort Cable Kit -Part number VN567AA	Connects a DisplayPort connector on an HP Business Desktop computer to a DisplayPort connector on a monitor
	HP Display and Notebook Stand-Part number AW662AA	Use two displays at once to increase productivity - your notebook display, plus one external display up to 24 inches in size. The adaptable design of the HP Adjustable Display Stand can accommodate a range of notebook sizes with the innovative adjustable shelf.
	HP Adjustable Display Stand-Part number AW663AA	Turn your HP Business Notebook into a desktop solution supporting up to a 24 inch display. A dual-hinged, smooth-motion display stand allows for greater depth, height and tilt adjustment for maximum comfort.
What's in the box?	**Monitor and Accessories**	HP Z23i 23-inch IPS Display, AC power cord, DVI cable, USB cable, DisplayPort cable
	Documentation	CD (includes user guide, warranty, drivers)
	Featured Software	HP Display Assistant is a software utility that enables theft deterrence and allows monitor adjustment, color calibration, and security/asset management using the Display Data Channel Command Interface (DDC/CI) protocol of the connected PC or workstation.
Other	**User Guide Languages**	English, Arabic, S. Chinese, T. Chinese, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Kazakh, Korean, Norwegian, Polish, Brazilian Portuguese, Russian, Slovenian, Spanish, Swedish and Turkish.

Technical Specifications

	Warranty Languages	English, Arabic, S. Chinese, T. Chinese, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Kazakh, Korean, Norwegian, Polish, Brazilian Portuguese, Russian, Slovenian, Spanish, Swedish and Turkish.
	Color	Black
	VESA External Mounting	Yes (one set of standard 4-hole pattern, 100 mm).
	Security Lock-Ready	Yes
	Country of Origin	China
Certification and Compliance		CB, CE, TUV, GS, GOST, CUL, CEL Grade 1, FCC, E-Star 5.0, CSA, NOM, S-Mark, VCCI, MIC, PSB, ISC, CCC, BSMI, C-Tick,. ICES, Microsoft WHQL Certification (Windows 8 and Windows 7), ENERGY STAR® Qualified, EPEAT® Gold[6], TCO 6.0 Edge Certified.
Compatibility		Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.
Service and Warranty		Protected by HP, including a 3 year standard limited warranty. Optional HP Care Pack Services are extended service contracts that extend your protection beyond the standard warranties.[7]

[1] ENERGY STAR® power is measured with factory defaults, brightness at ENERGY STAR® level of 200 cd/m2 and with no USB loads.
[2] Default Power is measured with factory defaults, including factory default brightness and USB ports loaded at 25% of maximum.
[3] Maximum Power is measured with monitor at maximum brightness and with USB ports loaded at 100% of maximum.
[4] External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
[5] The HP Quick Release has been designed to support a maximum of up to 24 lbs (10.9 kg) for all devices mounted. Because mounting surfaces vary widely and the final mounting method and configuration may vary, mounting fasteners are not supplied (other than the VESA-compliant screws). HP recommends that you consult with a qualified engineering, architectural or construction professional to determine the appropriate type and quantity of mounting fasteners required for your application and to ensure that your mounting solution is properly installed to support applied loads.
[6] EPEAT® Gold where HP registers commercial display products. See www.epeat.net for registration status in your country.
[7] Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Service starts from date of hardware purchase. Restrictions and limitations apply. See www.hp.com/go/cpc for details.

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